

SPECIFICATION AMENDMENTS

Please amend the specification as follows. All changes are shown by underlining the added text and double-bracketing and/or strikethrough of deleted text.

Please amend paragraph [0022] as follows:

[0022] It is a further objective of the present invention to provide a polymer-based chemistry system for wood preservation that, when liquid applied via whole-body impregnation or surface penetration methods, is polymerized to a solid-state ~~polyurethane~~ polyurethane/urea thermoset polymer.

Please amend paragraph [0023] as follows:

[0023] It is yet a further objective of the present invention to provide a polymer-based chemistry system for wood preservation and preservatives that, when applied either as whole-body liquid impregnation or surface penetration, produces a solid-state ~~polyurethane~~ polyurethane /urea with significant elastomeric properties. Furthermore, an objective of the present invention is an elastomeric property having a % distention-to-yield value of about 450% to 680%, depending on formula composition. The high value of this physical parameter may enable long-term immunity (such as in excess of 10 years) to the degradation effects of weather-related annual thermal stresses associated with shrinking and expansion - as is experienced by non-elastomeric thermoplastic materials.

Please amend paragraph [0029] as follows:

[0029] In one embodiment of the present invention there is provided a method for making a polymerizable, elastomeric, hydrophobic thermoset material for use as a wood preservative using current or other suitable practices and means for wood impregnation, comprising combining an oligomeric, stoichiometrically balanced blend of primary and secondary diamines with modified diphenylmethane diisocyanates and a one or more carrier solvent/reactant(s) to form a solution; coating or impregnating wood products with the solution; and drying the solution to form a ~~polyurethane~~ polyurethane /urea linked copolymer coated or impregnated wood product.

Please add the following section after paragraph [0029]:

BRIEF DESCRIPTION OF THE DRAWINGS

[0030] Figure 1 an a schematic illustrating a polyurethane/urea polymer in accordance with one embodiment of the present invention; and

[0031] Figure 2 is a schematic illustrating a coiled structure of an individual polymer molecule in accordance with one embodiment of the present invention.

Please amend paragraph [0037] as follows:

[0037] The formulations of these components to obtain a urea-linked ~~polyurethane~~ polyurethane /urea co-polymer is governed by the well-principled science of stoichiometric chemistry. Stoichiometric chemistry mix requirements

for compatible polymer components of various average molecular weight and various NCO % content are well known and practiced by those skilled in the science of polymer chemistry.

Please amend paragraph [0133] as follows:

[0133] Liquid thermosetting, hydrophobic, elastomeric, non-toxic ~~polyurethane~~ polyurethane /urea polymer solution was prepared as generally described in Example No. 1, using the following reactants:

<u>Reagent</u>	<u>Volume</u>	<u>StoichiometricVolume Ratio</u>
1) Acetone	116 ml.	0.810
2) Primary diamine D-2000	12 ml.	0.084
3) Secondary diamine UOP 4200	3.0 ml.	0.02T
4) Poly (oxyalkylene) polyol Multranol 4012	6.0 ml.	0.042
5) Diphenylmethane diisocyanate	<u>6.2 ml.</u>	<u>0.043</u>
Rubinate 9433	143.20 ml. Tot. Vol.	1.000

Solution was stirred in same manner as Example No. 1.

Please amend paragraph [0144] as follows:

[0144] The polymer chemistry-based formulations of the present invention for use as wood preservatives and preservation exhibit many desirable properties and characteristics. They are non-toxic; non-human carcinogenic; hydrophobic; elastomeric; termicidal; and chemically and structurally incapable of preservative leaching. The formulations are non-water based; resistant to solar ultraviolet exposure degradation; and exhibit a non-degraded, long-term effective elastomeric thermal stress response over a tested range of -80 degrees F to

+225 degrees F. The polymer chemistry-based wood preservative formulations are chemically classified as a ~~polyurethane~~ polyurethane /urea cross-linked polymer. They exhibit physical and chemical properties of a thermoset polymer; exhibit uniform structural characteristics, i.e. isotropic with uniform tensile strength and elastomeric properties in both longitudinal and radial directions; and are chemically inert to a large number of corrosive chemical agents (see Table 1). The formulations are biologically inert, i.e., long term (one year) immersion in both water and soil produced no detectable alterations in either physical or chemical properties. They exhibit a conservative service temperature range of -100 degrees F to +300 degrees F; and do not themselves support combustion, i.e., if ignited, will self-extinguish. When applied as a surface coating of approximately .003-.007 inches thick, the wood preservatives formulations allow transmission of water vapor, but not water liquid; when applied as a brushed-on surface sealant to water-based CCA-treated lumber, a single coat application reduces toxic CCA leaching by an average of 92%. When the formulations are used as an impregnation, the drying time required for handling and shipping lumber is reduced from several days to several hours. The formulations are exceptionally amenable to blending with a large variety of organic based dyes and colorants; most notable are the colorants manufactured by HULS AMERICA, INC., known as the 844 Colorant System. They are readily applied as a wood preservation impregnation via the present wood pressure treating system of sequential vacuum and pressure, but at notably lower values, e.g. 15-18 mm Kg vacuum, and 25-50 psi pressure.